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Substitute for form 1449A/PTO

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

### Sheet

of 1

Complete if Known	
Application Number	10/065,551
Filing Date	10/29/2002
First Named Inventor	Chistyakov
Art Unit	1765
Examiner Name	Duy Vu Nguyen Deo
Attorney Docket Number	ZON-004

## FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> , Number <sup>4</sup> , Kind Code <sup>5</sup> (if known)				
<i>mu</i>	B3	EP 0428 161 A2	05/22/1991	Kokusai Electric Co...		

Examiner  
Signature

Kathy McDonald

Date  
Considered

1/10/05

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PTO/SB/08b (08-03)

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Substitute for form 1449B/PTO				Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/065,551
(Use as many sheets as necessary)				Filing Date	10/29/2002
				First Named Inventor	Chistyakov
				Art Unit	1765
				Examiner Name	Duy Vu Nguyen Deo
Sheet	1	of	1	Attorney Docket Number	ZON-004

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>JHR</i>	C13	Encyclopedia Of Low Temperature Plasma, Pg. 119, Vol. 3.	✓
<i>JHR</i>	C14	Encyclopedia Of Low Temperature Plasma, Pg. 123, Vol. 3.	✓
<i>JHR</i>	C15	CHISTYAKOV, High-Power Pulsed Magnetron Sputtering, Application No.: 10/065,277, Filed: September 30, 2002.	

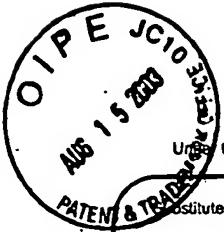
Examiner Signature	Rodney McDonald	Date Considered	1/10/05
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**1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.**

Applicant's unique status designation number (optional). - Applicant is to place a check mark here if an English language Translation is attached.  
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<b>8 TRADES</b> Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
<b>Application Number</b>		10/065,551			
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<b>Art Unit</b>		1765			
<b>Examiner Name</b>		Duy Vu Nguyen			
<b>Attorney Docket Number</b>		ZON-004			
<b>RECD</b> <b>AUG 19 2002</b> <b>GROUP 170</b>					

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GROUP 1700

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

Sheet

1

1

*Attorney Docket Number*

ZON 004

Duy Vu Nguyen

ZON 004

## NON-PATENT LITERATURE DOCUMENTS

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Signature

Robert Mc Donald

Date Considered

1/10/05

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 3

Substitute for form 1449A/PTO				Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	10/065,551
				Filing Date	10/29/2002
				First Named Inventor	Chistyakov
				Art Unit	1765
				Examiner Name	Nguyen
Sheet	1	of	3	Attorney Docket Number	ZON-004

**U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						Name of Patentee or Applicant of Cited Document	
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		Country Code <sup>3</sup>	Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
<i>Jay</i>	B1	WO	98/40532	09/17/1998	Chemfilt R. & D. ...		
	B2	WO	01/98553	12/27/2001	Chemfilt R. & D. AB		

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*Rodney Lee Gandy*

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 3

### Complete if Known

Application Number	10/065,551
Filing Date	10/29/2002
First Named Inventor	Chistyakov
Group Art Unit	1765
Examiner Name	Nguyen
Attorney Docket Number	ZON-004

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### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
<i>Yuan</i>	C1	BOOTH, ET AL., The Transition From Symmetric To Asymmetric Discharges In Pulsed 13.56 MHz Capacity Coupled Plasmas. J. Appl. Phys., July 15, 1997, Pgs. 552-560, Vol. 82 (2), American Institute of Physics.	
	C2	BUNSHAH, ET AL., Deposition Technologies For Films And Coatings, Materials Science Series, Pgs. 176-183, Noyes Publications, Park Ridge, New Jersey.	
	C3	DAUGHERTY, ET AL., Attachment-Dominated Electron-Beam-Ionized Discharges, Applied Science Letters, May 15, 1976, Vol. 28, No. 10, American Institute of Physics.	
	C4	GOTO, ET AL., Dual Excitation Reactive Ion Etcher for Low Energy Plasma Processing, J. Vac. Sci. Technol. A, Sept./Oct. 1992, Pgs. 3048-3054, Vol. 10, No. 5, American Vacuum Society.	
	C5	KOUZNETSOV, ET AL., A Novel Pulsed Magnetron Sputter Technique Utilizing Very High Target Power Densities, Surface & Coatings Technology, Pgs. 290-293, Elsevier Sciences S.A.	
	C6	LINDQUIST, ET AL., High Selectivity Plasma Etching Of Silicon Dioxide With A Dual Frequency 27/2 MHz Capacitive RF Discharge.	
	C7	MACAK, Reactive Sputter Deposition Process of Al <sub>2</sub> O <sub>3</sub> and Characterization Of A Novel High Plasma Density Pulsed Magnetron Discharge. Linkoping Studies In Science And Technology, 1999, Pgs. 1-2, Sweden.	
<i>Yuan</i>	C8	MACAK, ET AL., Ionized Sputter Deposition Using An Extremely High Plasma Density Pulsed Magnetron Discharge, J. Vac. Sci. Technol. A., July/August 2000, Pgs. 1533-37, Vol. 18, No. 4, American Vacuum Society	

Examiner  
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*Robert M. Donald*

Date  
Considered

11/10/05

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Sheet 3 of 3

Substitute for form 1449B/PTO		Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Application Number	10/065,551
(use as many sheets as necessary)		Filing Date	10/29/2002
Sheet	3	First Named Inventor	Chistyakov
of	3	Group Art Unit	1765
		Examiner Name	Nguyen
		Attorney Docket Number	ZON-004

#### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
<i>JHR</i>	C9	MOZGRIN, ET AL., High-Current Low-Pressure Quasi-Stationary Discharge In A Magnetic Field: Experimental Research, Plasma Physics Reports, 1995, Pgs. 400-409, Vol. 21, No. 5. Mozgrin, Feitsov, Khodachenko.
	C10	ROSSNAGEL, ET AL., Induced Drift Currents In Circular Planar Magnetrons, J. Vac. Sci. Technol. A., January/February 1987, Pgs. 88-91, Vol. 5, No. 1, American Vacuum Society.
<i>JHR</i>	C11	SHERIDAN, ET AL., Electron Velocity Distribution Functions In A Sputtering Magnetron Discharge For The EXB Direction, J. Vac. Sci. Technol. A., July/August 1998, Pgs. 2173-2176. Vol. 16, No. 4, American Vacuum Society.
<i>JHR</i>	C12	STEINBRUCHEL, A Simple Formula For Low-Energy Sputtering Yields. Applied Physics A.. 1985, Pgs. 37-42, Vol. 36, Springer-Verlag.

Examiner  
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Rodney the General

Date  
Considered

1/10/05

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## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

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TC 1700

Title of Invention	High-Power Pulsed Magnetically Enhanced Plasma Processing
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Application Number: 10/065551

Confirmation Number: 7685

First Named Applicant: Roman Chistyakov

Attorney Docket Number: zon-004

Search string: ( 4588490 or 5083061 or 5728278 or 5795452  
or 5863392 or 6057244 or 6451703 or 6447691  
or 6471833 or 20020019139 or 20020114897 or  
20030006008 ).pn.

### US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
1	4588490	1986-05-13	Cuomo et al.		204	298	
2	5083061	1992-01-21	Koshiishi et al.		315	111.81	
3	5728278	1998-03-17	Okamura et al.		204	298.11	
4	5795452	1998-08-18	Kinoshita et al.		204	298.37	
5	5863392	1999-01-26	Drummond et al.		204	192.12	
6	6057244	2000-05-02	Hausmann et al.		438	706	
7	6451703	2002-09-17	Liu et al.	B1	438	710	
8	6447691	2002-09-10	Denda et al.	B1	216	61	
9	6471833	2002-10-29	Kumar et al.	B2	204	192.37	

### US Published Applications

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init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
1	20020019139	2002-02-14	Zhang et al.	A1	438	714	
2	20020114897	2002-08-22	Sumiya et al.	A1	427	569	
3	20030006008	2003-01-09	Horioka et al.	A1	156	345.46	

Signature

Examiner Name	Date
<i>Rodney McDonald</i>	1/10/05